

W5YI

America's Oldest Ham Radio Newsletter REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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Vanity Call Sign Gate 3 Opens Aug. 6th, Cost Goes to \$50 In Sept.

THE GOOD NEWS: Advanced Class amateurs will be able to select their station call sign effective August 6, 1997;
THE BAD NEWS: On September 15, 1997 the Regulatory Fee associated with Vanity Call Signs climbs to \$50.

THE DETAILS: The Federal Communications Commission released two documents impacting vanity call signs since our last newsletter. One was an Order which generally increased Regulatory Fees. The other, a Public Notice announcing the opening of "Gate 3" of the Vanity Call Sign System.

Vanity call signs go to \$50

In the Report and Order on "Assessment and Collection of Regulatory Fees for Fiscal Year 1997" (MD Docket No. 96-186 released June 26) is the following paragraph concerning the opening of the remaining "gates" for the selection of Amateur Vanity Call Signs:

"Amateur Vanity Call Signs -- In late-filed comments, the American Radio Relay League (ARRL) discusses the Commission's implementation of vanity call signs. ARRL notes that we have established several "gates" for the filing of vanity call sign applications. The FY 1997 fee for an amateur vanity call sign would result in certain applicants incurring fees, over the life of the license, two-thirds higher than other applicants who filed their applications in "gates" currently open before the effective date of the FY 1997 fees. ARRL asks that we suspend implementation of the higher FY 1997 fee until after the remaining gates have been opened and applicants have been afforded an opportunity to file. In

response to ARRL's concerns, we expect our remaining vanity call sign "gates" to open before the effective date of our FY 1997 regulatory fee payment requirement. Thus, there should be no impact on new applicants for vanity call signs in FY 1997 and no need to delay implementation of the FY 1997 fee. However, applicants are expected to pay the fee applicable at the time they file.

Basically the Commission said that

- (1) The new \$50 Regulatory Fee for Vanity Call Signs in the Amateur Service will be effective September 15th.
- (2) It "expects" that all four "Gates" will be open prior to September 15th so there would be no need to delay the higher \$50 fee.

We checked with both Washington DC and Gettysburg, Pennsylvania FCC officials and were told that the plan all along was indeed to open all gates prior to charging the \$50.00 fee. It was pointed out that the key word, however, is "expects."

The FCC wants all Advanced Class amateurs to have the opportunity to get a shot at a vanity call sign before the program is opened to the balance of the amateur community. If something goes wrong, however, -- such as an avalanche of improperly filed vanity call sign applications which require manual handling -- it is possible that a delay could result.

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The Commission confirmed that even if Gate 4 was not open by September 15th, the cost of a self-selected vanity call sign increases to \$50. on that date.

The FCC was forced to revise its *Schedule of Regulatory Fees* in order to collect \$152.5 million in regulatory fees that Congress has required it to collect for Fiscal Year 1997. That amount is nearly 21% more than the amount Congress designated for recovery for FY 1996.

Regulatory Fees, authorized by Section 9(a) of the Communications Act, provide for reimbursement to the taxpayer of cost-based fees for such FCC services as enforcement, rulemaking, international and user information activities. While some FCC licensees were assessed reduced Regulatory Fees -- most were adjusted upward.

Amateur radio operators are statutorily exempt from license fees, but are assessed a Regulatory Fee for vanity call signs. For FY-1996, the fee was \$3.00 per year. The fee now goes to \$5.00 per year -- or \$50.00 for a ten year term.

The R&O indicates that the FCC expects 10,000 applicants will apply for vanity call signs in FY 1997. Our feeling is that this figure is extremely low! About 20% of all Extra Class amateurs now have new vanity call signs. That same percentage applied to Advanced Class licensees eligible under Gate 3 shows a potential of another 24,000 vanity call signs. And 100,000 call signs could be issued under Gate 4.

The Regulatory Fees on GMRS (General Mobile Radio Service) licenses has also been increased from \$3.00 to \$5.00 per year (\$25.00 for a five year term.) The nation's 600,000 recreational boaters and 150,000 private aircraft pilots that operate domestically are no longer subject to the radio carriage requirements. When a ship or aircraft station is licensed, however, the regulatory fee also increases from \$3.00 to \$5.00 annually.

Vanity Call Sign Gate No. 3 Opens August 6th

On July 3rd, the FCC issued a Public Notice stating that Advanced Class amateurs could apply for certain vanity call signs on August 6th. For amateurs with a mailing address in the continental 48 states, those call signs have a Group B (2 letter) prefix beginning with NA-NZ, KA-KZ or WA-WZ - a numeral 0 - 9 - and a two letter prefix AA-ZZ.

Advanced Class amateurs in the continental 48 states may also apply for available Group C (K, N or W by 3 suffix letters AAA-ZZZ) or Group D (KA-KZ or WA-WZ -- but not NA-NZ -- by 3 suffix letters AAA-ZZZ - except the letter X may not follow the numeral.)

The following two letter prefixes are reserved for amateurs with mailing addresses outside of the continental 48 states. Alaska: AL, KL, NL or WL; Caribbean: KP, NP or WP and Pacific: AH, KH, NH or WH.

The complete text of the July 3rd Public Notice:

AMATEUR STATION VANITY CALL SIGN SYSTEM FILING GATE 3 OPENS AUGUST 6, 1997

Amateur operators who meet the following eligibility standards may request a vanity call sign on or after August 6, 1997. If your application is received prior to this date or if you do not qualify under these standards, your application will be dismissed. File your request on one FCC Form 610-V using either, but not both, the interactive electronically-filed Form 610-V or the document Form 610-V. To facilitate the processing of requests for vanity call signs each workday, electronically-filed Forms 610-V for which the filing fee has been received will be processed first followed by document Forms 610-V.

The fee is \$30. [Again, this fee goes to \$50 on September 15th] Payment may be made by check (payable to "FCC"), bank draft, money order or credit card. Do not send cash.

Using the interactive electronically-filed Form 610-V

The interactive electronically-filed Form 610-V is available via the FCC Internet homepage at <<http://www.fcc.gov/wtb/amradsrv.html>>. To access the instructions, click your mouse button with the pointer on the highlighted portion of the item for which you need assistance. Press your <enter> key to submit your application.

If you have provided the required information, the screen will prompt you with a *Fee Remittance Advice*, FCC Form 159, that you must complete, print and mail together with the fee to Federal Communications Commission, POB 358994, Pittsburgh, PA 15251-5994. The Form 159 and the fee must be received within ten (10) days of submitting your application or the application will be dismissed.

Using the document Form 610-V

The document Form 610-V is available for downloading at <<http://www.fcc.gov/formpage.html>>, from the Fax-on-demand system by calling (202) 418-0177 from the handset of a facsimile machine, or from the FCC's forms contractor by calling (800) 418-FORM (3676).

Mail your application package, including your completed Form 610-V and the fee to Federal Communications Commission, Amateur Vanity Call Sign Request, POB 358924, Pittsburgh, PA 15251-5924. [Important: Note this address is not the same as that for the interactive electronically-filed Form 610-V.]

Legibility is critical. If the information on your application is not legible, you could experience a delay in processing, lose the opportunity to obtain a requested call sign or even obtain a call sign different from what you want.

You must hold an unexpired amateur operator/primary station license grant of the proper operator class, as described below, to request a vanity call sign for your primary station. To request a vanity call sign for a club

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station, you must also hold an unexpired club station license grant listing you as the license trustee. Your name and mailing address as shown on your current license grant must be correct.

If your license grant has expired, or if your name or address has changed, you must first request modification of your license grant to show the correct information by filing FCC Form 610 or, in the case of a club station, FCC Form 610-B. Refer to the licensee data base to verify that the call sign you are requesting is not already assigned.

The license grant of the former holder now deceased must be deleted from the licensee database. This is accomplished by submitting a signed request for license grant cancellation accompanied by a copy of an obituary or death certificate to the FCC, 1270 Fairfield Road, Gettysburg, PA 17325-7245 prior to filing the application for a vanity call sign. Even where a call sign does not appear on the data base, it may not be available for assignment.

For additional information on the assignment status of call signs, contact the FCC's copy contractor, International Transcription Services [1-717-337-1433]. You may also contact the FCC's National Call Center [1-888-225-5322]. It will provide information free of charge, with a limit of five call signs.

A call sign is normally assignable two years following license expiration, surrender, revocation, set aside, cancellation, void *ab initio*, or death of the grantees. See Fact Sheet PR5000 Number 206-V AMATEUR STATION VANITY CALL SIGN SYSTEM.

Where a vanity call sign for which the most recent recipient was ineligible is surrendered, canceled, revoked or voided, the two year requirement does not apply. For explanations of Groups A, B, C and D and the geographic Regions, see Fact Sheet PR5000 Number 206-S, AMATEUR STATION SEQUENTIAL CALL SIGN SYSTEM.

Request by list - (Primary or Club station)

Provide a list of up to 25 call signs in the order of your preference. The first assignable call sign on your list will be assigned to your station. When so requesting for your primary or club station:

- The call sign must have been unassigned for at least two years.
- If you are an Amateur Extra Class operator, each call sign must in Group A, B, C or D. (Opened September 23, 1996.)
- If you are an Advanced Class operator, each call sign must in Group B, C or D. (Opens August 6, 1997)

NOTE: General, Technician Plus, Technician, and Novice Class operators are not yet eligible to request by list. They will be eligible at Gate 4.

Each call sign must be one designated for the Region of

your mailing address as follows:

- One of the contiguous 48 states - Regions 1 to 10.
- Alaska - Regions 1 to 11.
- American Samoa - Regions 1 to 10, or Region 13 having numeral 8.
- Commonwealth of Northern Marianna Islands - Regions 1 to 10, or Region 13 having numeral 1.
- Guam - Regions 1 to 10, or Region 13 having numeral 2.
- Hawaii - Regions 1 to 10, or Region 13 having numeral 6 or 7.
- Puerto Rico - Regions 1 to 10, or Region 12 having numeral 3 or 4.
- Virgin Islands - Regions 1 to 10, or Region 12 having numeral 2.

Request by former holder (Primary station) -

Opened May 31, 1996.

For your primary station, you may request a call sign that was previously assigned to your primary, secondary, repeater, auxiliary link, control or space station. When so requesting for your primary station:

- You may request your former call sign even though it has been unassigned for less than two years. The two year requirement does not apply to an otherwise eligible primary station if the call sign was previously assigned to a station of the requestor.
- You do not have to hold a class of operator license required for the Group (A, B, C, or D) for the call sign requested. A call sign request by former holder may be from any Group in the sequential system.
- Your mailing address does not have to be in the Region designated in the sequential system for the call sign requested. A call sign requested by former a holder may be in any Region.

Request by close relative or former holder now deceased (Primary station) -

Opened May 31, 1996.

For your primary station, you may request a call sign that was previously assigned to the primary, secondary, repeater, auxiliary link, control or space station of your now-deceased spouse, child, grandchild, step-child, parent, grandparent, stepparent, brother, sister, stepbrother, stepsister, aunt, uncle, niece, nephew, or in-law. When so requesting for your primary station:

You may request the former call sign of a close relative now deceased even though it has been unassigned for less than two years. Upon the death of the holder, a call sign is assignable immediately to an otherwise eligible primary station of a close relative.

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- You must be an Amateur Extra Class operator to request a Group A call sign.
- You must be an Amateur Extra or Advanced Class operator to request a Group B call sign.
- You must be an Amateur Extra, Advanced, General, Technician Plus, or Technician Class operator to request a Group C call sign.
- You must be an Amateur Extra, Advanced, General, Technician Plus, Technician or Novice class operator to request a Group D call sign.
- Your mailing address does not have to be in the Region designated in the sequential system for the call sign requested. A call sign requested by a close relative of former holder now deceased may be in any Region.
- You must show your relationship to the deceased person exactly as listed in the instruction, i.e., child, niece or in-law.

Request by former holder - (Club station) -

Opened May 31, 1996.

For the club station for which you are the license trustee, you may request a call sign that was previously assigned to that station. When so requesting for a club station:

- You may request your club station's former call sign even though it has been unassigned for less than two years. The two year requirement does not apply to an otherwise eligible club station if the call sign was previously assigned to the club station for which the requestor is the license trustee.
- You do not have to hold a class of operator license required for the Group (A, B, C, or D) for the call sign requested. A call sign request by former holder may be from any Group in the sequential system.
- Your mailing address does not have to be in the Region designated in the sequential system for the call sign requested. A call sign requested by a former holder may be in any Region.

Request "In Memoriam" - (Club station) -

Opened July 22, 1996.

If you are the license trustee for your club station, you may request in memoriam for your club station the call sign previously shown on the primary, secondary, repeater, auxiliary link, control or space station license of a deceased person who was a member of the club. When so requesting in memoriam for your club station:

- The club must have held a club station license grant on March 24, 1995, or you must be an Amateur Extra or Advanced Class operator.

- You may request the call sign even though it has been less than two years following death of the club member. Upon the death of the holder, the call sign is assignable immediately to an otherwise eligible club station.
- You must have in your station records a written statement (do not send to FCC unless requested) from a spouse, child, grandchild, stepchild, parent, grandparent, stepparent, brother, sister, stepbrother, stepsister, aunt, uncle, niece, nephew, or in-law of the deceased confirming the deceased person's association with the club and showing consent of the relative to your request.
- You must be an Amateur Extra Class operator to request a Group A call sign.
- You must be an Amateur Extra or Advanced Class operator to request a Group B call sign.
- You must be an Amateur Extra, Advanced, General, Technician Plus, or Technician Class operator to request a Group C or D call sign.
- Your mailing address does not have to be in the Region designated in the sequential system for the call sign requested. A call sign requested in memoriam may be in any Region.
- You must enter the relationship to the deceased person giving consent exactly as listed in the instruction, i.e., child, niece or in-law.

If you need further information about the vanity call sign system, visit the Internet site at <<http://www.fcc.gov/wtb/amradsrv.html>> or contact the FCC's National Call Center at 1- 888-225-5322 (CALLFCC)

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AMATEUR RADIO STATION CALL SIGNS

...sequentially issued as of the first of July 1997:

Radio District	Group A Extra	Group B Advan.	Group C Tech/Gen.	Group D Novice
0 (*)	AB0FW	KI0JA	(***)	KC0BNX
1 (*)	AA1SI	KE1IA	N1ZOA	KB1CEP
2 (*)	AB2DY	KG2MA	(***)	KC2CDJ
3 (*)	AA3PZ	KF3AD	N3ZRH	KB3BUF
4 (*)	AF4EB	KU4IF	(***)	KF4TBS
5 (*)	AC5NC	KM5KH	(***)	KD5BOY
6 (*)	AD6CA	KQ6QB	(***)	KF6MOW
7 (*)	AB7VW	KK7IM	(***)	KC7YOU
8 (*)	AB8AT	KI8DD	(***)	KC8ICF
9 (*)	AA9UR	KG9KX	(***)	KB9RBX
N. Mariana	NH0B	AH0AY	KH0GT	WH0ABH
Guam	(**)	AH2DD	KH2SA	WH2ANT
Hawaii	AH7V	AH6PC	KH7FB	WH6DEF
Am. Samoa	AH8O	AH8AH	KH8DK	WH8ABF
Alaska	AL0F	AL7QU	KL0JZ	WL7CUK
Virgin Isl.	(**)	KP2CL	NP2JR	WP2AII
Puerto Rico	NP3I	KP3AY	NP3PB	WP4NNF

* = All 1-by-2 & 2-by-1 call signs have been assigned.

** = All 2-by-1 call signs have been assigned.

*** = Group "C" (N-by-3) call signs have now run out in all but the 1st and 3rd call district.

Note: New prefix numerals now being assigned in Puerto Rico (KP3/NP3), Hawaii (AH7/KH7) & Alaska (AL0/KL0)
[Source: FCC, Gettysburg, Pennsylvania]

NEW AND UPGRADING AMATEUR STATISTICS FOR THE MONTH OF JUNE 1997:

Amateur License Class	New Amateurs			Upgrading Amateurs		
	1995	1996	1997	1995	1996	1997
Novice	66	72	86	0	4	0
Technician	2507	1551	3142	1	15	0
Tech Plus	303	146	213	425	317	412
General	130	18	28	463	294	359
Advanced	28	4	4	567	235	239
Extra Class	21	1	2	461	244	215
Club	215	52	135	0	0	0
Total:	3270	1844	3610	1917	1119	1225
Increase:	-43.6%	+95.8%		-71.3%	+9.5%	

(NOTE: Big increase in new Technician Class amateurs is due to the Question Pool changing on July 1, 1997.)

RECIPROCAL OPERATING ARRANGEMENTS

The FCC issued the following Public Notice on July 2, 1997. It supercedes the notice issued September 5, 1995. Please note that there are no longer reciprocal operating arrangements with Hong Kong since that country has now reverted to Chinese rule.

The United States has made arrangements with the following countries to grant a reciprocal permit for alien amateur licensee (FCC Form 610-AL) to their citizens who hold amateur service licenses:

Antigua and Barbuda, Argentina, Australia, Austria, The Bahamas, Barbados, Belgium, Belize, Bolivia, Bosnia-Herzegovina, Botswana, Brazil, Canada (Canadian amateur service stations do not need a reciprocal operating permit while operating in the United States), Chile, Colombia, Costa Rica, Croatia, Cyprus, Denmark (including Greenland), Dominica, Dominican Republic, Ecuador, El Salvador, Federated States of Micronesia, Fiji, Finland, France [including French Guiana, French Polynesia (Gambier, Marquesas, Society, and Tubuai Islands and Tuamotu Archipelago), Guadeloupe, Ile Amsterdam, Ile Saint-Paul, Iles Crozet, Iles Kerguelen, Martinique, New Caledonia, Reunion, Saint Pierre and Miquelon, and Wallis and Futuna Islands], Federal Republic of Germany, Greece, Grenada, Guatemala, Guyana, Haiti, Honduras, Iceland, India, Indonesia, Republic of Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kiribati, Kuwait, Liberia, Luxembourg, Macedonia, Republic of the Marshall Islands, Mexico, Monaco, Netherlands, Netherlands Antilles, New Zealand, Nicaragua, Norway, Panama, Paraguay, Papua New Guinea, Peru, Philippines, Portugal, Seychelles, Sierra Leone, Solomon Islands, Republic of South Africa, Spain, St. Lucia, St. Vincent and the Grenadines, Surinam, Sweden, Switzerland, Thailand, Trinidad and Tobago, Tuvalu, United Kingdom [including Bermuda, British Virgin Islands, Cayman Islands, Channel Islands (including Guernsey and Jersey), Falkland Islands (including South Georgia Islands and South Sandwich Islands), Great Britain, Gibraltar, Isle of Man,Montserrat, Northern Ireland, Saint Helena (including Ascension Island, Gough Island, and Tristan Da Cunha Island), and Turks and Caicos Islands], Uruguay, and Venezuela.

An alien may apply for the permit by sending a completed application form (FCC Form 610-A) and a photocopy of the alien's license to FCC, 1270 Fairfield Road, Gettysburg, PA 17325-7245. A reciprocal permit for alien amateur licensee is valid for one year or until the expiration date on the alien's amateur service license, whichever comes first. Operator privileges are those authorized by the permittee's own government, but do not exceed those of the FCC Amateur Extra Class operator.

No United States citizen, regardless of any other citizenship also held, is eligible for an FCC-issued reciprocal permit for alien amateur licensee. The applicant must be a citizen of the country that issued the amateur service license. Amateur operators who will be in the United States for extended periods of time are encouraged to obtain an FCC amateur service license. Any person, except a representative of a foreign government, may apply for an FCC license upon passing the qualifying examinations.

When a station is transmitting under the authority of an amateur service license issued by the Government of Canada or a reciprocal permit for alien amateur licensee, an indicator consisting of the appropriate letter-numeral designating the station location must be included in the station identification announcement. This indicator must be separated from the assigned call sign by the slant mark (/) or any suitable word that denotes the slant mark. When the station is transmitting under the authority of an amateur service license issued by the Government of Canada, the indicator must be included after the call sign (example: "VE3XX/W4").

When the station is transmitting under the authority of a reciprocal permit for alien amateur licensee, the indicator must be included before the call sign (example: "W4/VK3XX"). At least once during each intercommunication ("QSO"), the identification announcement must also include the general geographical location by city and state, commonwealth or possession. (example: "W3/VK3XX Washington, DC" or "VE3XX/W4 Central Florida").

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CUTTING EDGE TECHNOLOGY

- **The cost of international faxing is due to be slashed by as much as 80%** as Uunet Technologies begins offering Internet facsimile in hundreds of cities worldwide. The new service will not require the use of a PC to initiate a fax. Instead IP Fax lets users dial from a fax machine and their documents are directed via a local call for delivery to their destination over the Uunet network. MCI is also gearing up to roll out Internet-based fax.
- **Be on the lookout for a big push on digital cameras** that store images on 3.5-inch floppy disks. Sony is introducing two models (\$600 and \$800) in its Digital Mavica line. Canon will launch a Digital Imaging Network that uses the Internet to link subscribers with photo processing labs. It will also provide storage so you can call up your photographs on the Net.
- **Philips Electronics (Holland) will introduce an audio recorder** later on this year that allows consumers to record their own compact CDS. Philips also will launch a digital still camera. The photos will be processed by a PC.

HARDWARE & SOFTWARE

- **Look for many Packard-Bell PC retailers to drop the line.** "NEC Now" -- a new direct-fulfillment program of Packard Bell-NEC -- is due to debut next month. The new telemarketing program will target home office and business users. Packard Bell-NEC resellers, however, fear the firm's new marketing direction will siphon off many of their walk-in customers. The fact remains that "direct-to-the-customer" sales yields higher manufacturer margins ...at a lower customer retail.

INTERNET NEWS

- **Universal Internet online platform to begin operation in September!** San Francisco-based CNET: The Computer Network, Inc., has just announced a new GUI (graphical user interface) called "Snap!" -- an easy-to-use "front door to the Internet." While "Snap!" has the look and feel of an online service, it is actually a bridge between the user and the vast resources of the World Wide Web.

"Snap!" -- code-named "Gunsmoke"

during its development phase -- took 150 programmers and cost CNET more than \$2.2 million to develop! (Check out: <http://snap.com>)

Up until this point, CNET has been providing industry news and features geared to the experienced computer enthusiast through its various Web sites. With "Snap!" CNET now directs its activities toward the Web newcomer. Similar to America On-Line, "Snap! Online" will basically be a programmable front-end with which to navigate the Web. In fact, it will look very much like AOL.

Several big name companies (such as AT&T Corp., Bell-South, Earthlink, MCI Communications Corp., Mindspring and Sprint Corp.) have already been licensed to use "Snap!" They will be able to offer their own co-branded online consumer information service by customizing "Snap's!" 14 information "channels."

Consumers using the service can access an index of 75,000 sites compiled by "Snap!" And the site list grows to 150,000 by year end. CNET will obtain revenue from affiliation fees, annual charges, transaction handling, targeted advertising (based on user's zip-code) and banner advertising.

The service will be distributed through Internet Service Providers, third-party marketers, telephone companies and computer manufacturers.

■ **The Internet is debunking the old adage in insurance circles that insurance is sold rather than bought.** The Web is beginning to take a toll on what has traditionally been the turf of the commission salesman. The real estate, insurance, investment and automobile industries are looking more and more at dealing direct with the customer with so-called "no load" or "low load" offers now that the Internet lets them into the household at small cost.

Last year, non-commissioned life insurance sales doubled and now account for 4 percent of the entire industry volume. And be sure to check out GEICO Direct (<http://www.geico.com>) and Quicken's InsureMarket (<http://www.insuremarket.com>) GEICO (Government Employees Insurance Co.) now sells anyone..

■ **Microsoft's Bill Gates gave \$200 million of his own money to public libraries** in North America so that visitors would be able to surf the Internet. His company added an equal amount of free software. Half of the nation's 17,000 libraries now have Internet access, but in most cases it is only for their staff to use.

Oracle Corp., who is pushing NC appliances (low-priced network computers) instead of PCs quickly coughed up \$100 million to put NCs into schools.

Microsoft and Oracle are making their gifts through non-profit foundations they have set up. The unsaid objective of the donations is to accustom beginners to Microsoft software and Oracle's network computers.

You'll see NetPCs on dealer shelves this summer. They have Intel chips, a hard drive, memory and run Microsoft Window programs downloaded off of the internet. But they don't have floppy or CD-ROM drives at all. NCs do not have an internal hard disk drive and "...don't do Windows." It will be interesting to see how both develop.

■ **What workers are doing on the Internet during company time is apparently an eye-opener!** An interesting story appearing in "TechWire" online news tells about corporate employees losing money at online casinos "...real gambling with real cash. ...With the simple transfer of a credit card number, anybody can buy 'cyberchips' and play." A research firm based in Saratoga, NY recently released the results of a study it did on Internet gambling. It seems they gave eight workers a credit card (with which to purchase 'cyberchips') and access to a casino Web-site "...to see how susceptible employees might be to the allure of gambling at their desks. The workers were observed through a one-way mirror. Most bet on roulette, slots and blackjack rather than sports events. "At the end of the game, the credit card was either credited or debited. The rate of loss was astronomical..." the research firm discovered.

More and more companies are blocking access to non-work related sites and are generating reports on the sites employees visit. The study was completed in response to a company who "...had discovered one of its employees was spending hours each day losing money at an offshore gaming site."

In another study it was found that three-quarters of Internet users have made at least one stop at an online smut site during business hours. A software monitoring firm (ON Technology, Cambridge, MA) markets a tracking program called "ON Guard" which secretly monitors employee Net usage at the server and reports to the boss what they are doing. The program can also block whole categories of Web sites which are constantly updated. Worker telephone and Internet monitoring

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does not invade their privacy since their employer is paying the bill.

EMERGING COMMUNICATIONS

■ TAPR's Dewayne Hendricks, WA8DZP (Freemont, CA) sent us an interesting press release from Tokyo entitled "Airships To Harbor Wireless Networks In Japan." The concept is basically the same as the *Stratospheric Telecommunications Service (STS)* in the planning stages here in the U.S. (See *W5YI Report*, July 1, 1997)

It seems that Japan's *Ministry of Posts and Telecommunications* is promoting a nationwide wireless communications network based on relay stations installed in airships. The MPT made the decision to support the technology after it received a report on the feasibility of such a system.

A group headed by Prof. Tsutomu Suzuki at the Nippon Institute of Technology recently concluded after a six month long study that a "stratospheric radio-relay system" could be built by installing relay and communications equipment in unmanned long-term floating platforms. These would include solar powered 270-meter (900 foot) long airships equipped with communications gear weighing 1 ton.

The group also reported on what research and development work needs to be done before such a system can be realized. The system could provide the basic infrastructure for high-speed communications networks, such as Internet access and mobile video conferencing.

Benefits of such a system include the ability to access the system from almost anywhere in Japan or the seas surrounding the country, because of the large area each airship could cover. Several airships would be needed to cover Japan which would float at an altitude of 20-km (12.5 miles), about twice as high as aircraft generally fly.

Coverage from each station would vary with the use of three different types of footprint. The local area footprint would stretch to cover a radius of 100-km (60 miles) and be accessible at a 10-degree or greater angle of elevation. Residential coverage would send a 35-km (20 mile) radius footprint on major cities and be accessible at angles of elevation of 30-degrees or more. In major metropolitan areas, 10-km (6 mile) wide cells would provide service, each available at 60-degree of larger angles of elevation.

The MPT said that initial tests will begin in 1998, using small size prototypes around 30-meters (100 feet) long at heights of just 300-meters (1000 feet). From the second half of 1999 into the first half of 2001, the ministry plans tests involving medium sized prototypes, 80 to 100-meters (250-300 feet) long and 17-km (10 miles) above ground. The final verification tests would be conducted from the second half of 2001 into 2002 when actual size craft would be floated at 20-km above ground.

■ **Satellite delivered phone and Internet service is on the horizon.** *Business Week* reports that 1,700 satellite launches are scheduled over the next ten years. In 1996, 22 rockets placed 29 satellites. This year will see 45 launches carrying 76 satellites. Next year it will be 61 launches and another 121 satellites.

The newer LEO (low earth orbit) satellites such as used by the Iridium, Globalstar and Teledesic networks do not need powerful rockets since they are smaller and orbit closer to earth. One satellite company (Orbital Sciences of Dulles, VA) even launches LEO satellites from under the wing of a jumbo jet.

The big players in LEO networking are Motorola (Iridium - 66 satellites), Loral Space and Communications (Globalstar - 48 satellites) and Microsoft/McCaw (Teledesic - 840 satellites).

A Delta II rocket lofted the first five Iridium satellites into orbit on May 5th. The plan is to have all 66 Iridium satellites in orbit by May 1998 and to have the system operational in September 1998.

■ **Murdoch's News Corp. and MCI Communications have folded their high power satellite assets and geostationary satellite slot into a newly formed public company: PrimeStar Partners.** The new firm is primarily controlled by cable-TV giants Time-Warner, Comcast Corp., and Tele-Communications, Inc.

While cable-TV still leads with 65 million subscribers, the fastest growing industry segment is direct broadcast satellite (DBS) television. There are now five million dish subscribers with a forecast of nine million by the end of next year.

PrimeStar, the second largest DBS provider with 1.8 million subscribers, operates a U.S.-wide satellite TV network of 160 channels. DirecTV, owned by General Motors Corp., is the market leader with 2.5 million customers.

The new satellite assets will permit PrimeStar to offer more channels to smaller

er 18-inch dishes. Their customers now use 36-inch dishes. The deal faces close scrutiny by federal anti-trust officials.

WASHINGTON WHISPERS

■ **Digital Selective Calling comes to recreational boaters.** Starting on June 17, 1999, MF, HF and VHF marine radio manufacturers must include a Digital Selective Calling (DSC) capability in their new radios in order to get FCC approval to sell them in the U.S.

No recreational boater is required to buy a DSC radio, but if there are DSC coast stations or other vessels with DSC in the areas where they sail, it is certainly to your advantage to have one. DSC radios are fundamentally different from conventional marine radios in that:

- (1) You need a maritime mobile service identity (MMSI) programmed into your radio to serve as a kind of telephone number;
- (2) DSC automatically maintains a watch on marine VHF channel 70, rather than you listening to channel 16,
- (3) You can call other DSC radios or coast stations directly using their MMSI, and;
- (4) You can communicate with commercial vessels that are required to carry DSC radios as of February 1, 1999.

Public coast stations are also now able to provide convenient, automated marine phone service without using an operator.

■ The recommendation of a two year study by a presidential task force is that the Internet community should decide for itself how to conduct business in cyberspace. Toward that end, the Clinton administration wants to make the Internet a "global tax and tariff-free trade zone."

On July 1st, Clinton committed the administration to a plan that would permit a full array of international online business transactions by the end of the decade. The government's hands off, no-new taxes approach to regulating the Internet should permit electronic commerce to reach \$200 billion by the year 2000.

Clinton directed Commerce secretary William Daley, to establish copyright and consumer protections on the Internet. Daley agreed that "Technology is moving faster than lawmakers can respond and attempts by government to manage the Internet will only inhibit technological innovation." The hands-off the Internet

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policy came only a week after being on the losing side of a U.S. Supreme Court decision on Internet free speech.

■ **The Internet Tax Freedom Act of 1997 would impose an indefinite moratorium on new taxes on Internet commerce.** The U.S. Conference of Mayors went on record as opposing federal legislation now under consideration that would ban new taxes on online commerce. Calling it "...an intrusion into inherently local affairs" the organization fears a loophole that could cause consumers to flock to the Internet to purchase goods void of taxes thereby depriving local and state governments of revenue they already receive today.

■ **It is beginning to look like digital high-definition (HDTV) television won't be available as early as originally planned.** A House bill would allow TV broadcasters to keep their analog channel beyond 2006 if 5% of their audience still only has only analog TV reception capability. And the Senate wants to drop the requirement that network-affiliated TV stations transmit in a digital format in the 30 largest cities by the fall of 1999. TV broadcasters initially said they would enter the HDTV age in 1999 if they were given free digital spectrum. The back-and-forth confusion is causing big headaches for TV set makers.

■ **The New York Times** (June 23rd) says that fewer consumers are buying analog televisions this year because of fears that their set may soon become obsolete. Here is what they say:

"In television showrooms nationwide, manufacturers report, potential buyers are peppering salesmen with questions about high-definition television, asking why they should buy a television now, when the new models are scheduled to go on sale next year."

Converter boxes will indeed permit analog sets to receive digital TV, but even with a converter box, conventional televisions will not be able to show programming with a high definition picture.

■ **New FCC taking shape.** The White House has announced plans to nominate FCC general counsel William Kennard, a Democrat to replace James Quello and House Commerce Committee chief economist Harold Furchtgott-Roth, a Republican to replace the vacancy created by Andrew Barrett's departure on April 1, 1997. Rumors are that Michael Powell, a Republican and son of former Joint Chief of Staff

Gen. Colin Powell; Kathleen Wallman, a White House counsel and Ralph Everett, a Washington lawyer are in the running to replace commissioner Rachel Chong whose term expired June 30. Stay tuned.

AMATEUR RADIO BRIEFS

■ **An unmanned cargo ship collided with the Mir space station on June 25** knocking a sizeable hole in it, smashing solar panels, decompressing the craft, slashing power cables and destroying science experiments. It was the worst orbital collision ever! The 7-ton Progress supply vehicle was in the process of being redocked to Mir when the mishap occurred.

As a precautionary measure, the crew quickly prepared the Soyuz escape vehicle for possible evacuation. Without crew members aboard, Mir's orbit would quickly deteriorate meaning an end to the station. Fortunately, abandonment was not necessary and the three-man crew -- including U.S. astronaut Mike Foale, KB5UAC -- are safe. Officials describe the situation as serious, but stable.

The 50-foot Spektr module, however, which contained Foale's personal quarters had to be sealed off from the rest of the space station. Operating with only 50% power, Mike used the ham gear to supplement Mir's communications systems to talk to NASA managers and fellow astronauts.

As we go to press, Russia has launched a supply ship to Mir to take needed replacement parts to the crew. Next month, another Russian crew is scheduled to fly up to Mir to seal the leak and put the module back on line. KB5UAC continues to operate ham radio on 145.800 MHz and occasionally on 145.985 MHz (simplex).

Foale has been aboard Mir since mid-May, when he replaced Jerry Linenger, KC5HBR. Linenger had his share of problems during his four-month stay on Mir, including a fire and coolant-system leaks.

There is mounting concern in Washington about whether U.S. astronauts should continue to fly on the crumbling 11-year old space station which has already outlived its anticipated six year life span. The next shuttle-Mir docking mission is targeted for mid to late September. STS-86 will include the return of Mike Foale, KB5UAC, from Mir and delivery of his replacement, astronaut Wendy Lawrence, KC5KII.

Rep. James Sensenbrenner, who

chairs the House Science Committee, has called for a ban on long-term U.S. visits to the Mir until the safety of the Russian space station can be certified. Thanks, K6DUE, ARRL and WA6ITF.

■ **On July 1st, the space shuttle Columbia resumed its science mission,** cut short on April 8th due to a fuel cell malfunction. It was the first time that the same crew had flown together. Three of the seven astronauts are licensed amateurs: Commander James Halsell (KC5RNI), Payload Commander Janice Voss (KC5BTM) and Mission Specialist Donald Thomas (KC5FVF.) All of the SAREX school contacts (including one in Beijing, China) are being made up on the 16-day flight. The shuttle passed within 60 miles of the crippled Mir space station but there was no radio contact between the two. Both carry 2-meter ham radio equipment.

■ **Cyberhacker Kevin Mitnick, 33 and N6NHG has been given a 22-month prison term.** U.S. District Judge Mariana Pfaelzer sentenced Mitnick to 14 months for parole violations and eight months for his guilty plea to possession of cloned cellular phone numbers. The judge did not order Mitnick to pay any restitution since he does not have the ability to do so.

After an elaborate 3-year cyberspace chase, Mitnick's whereabouts was tracked to Raleigh, NC by San Diego computer security expert Tsutomu Shimomura. He surrendered at his apartment on February 15, 1995 surrounded by FBI agents.

Mitnick waived extradition and was jailed in California, charged with computer fraud and illegal use of a telephone access device. The list of allegations against him included theft of 20,000 credit card numbers from Netcom On-Line Services, which provides thousands with access to the Internet.

Technically, Mitnick has already served his time while awaiting sentence. But he won't go free since he is awaiting trial on an unrelated 25-count indictment for going on another hacking rampage with fellow cyberhacker Lewis DePayne, KA6RBJ.

The indictment follows an investigation by a national task force of FBI, NASA and federal prosecutor high-tech experts. The affected companies are Novell, Motorola, Nokia, Fujitsu and NEC.

The trial has been set for January 1998. Mitnick has pleaded innocent to those charges. If convicted, he could face an additional five to ten years in prison.

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SUPREME COURT STRIKES DOWN CDA

Content-based regulation of speech ruled unacceptable

As expected, by a vote of 7 to 2, the Supreme Court on June 26th struck down a federal law designed to regulate indecent material on the Internet. It ruled that the *Communications Decency Act of 1996* was too broad and violated constitutionally protected free speech.

President Clinton issued a statement agreeing that "The Internet is an incredibly powerful medium for freedom of speech and expression that should be protected. ...But there is material on the Internet that is clearly inappropriate for children."

Clinton added that "...in the coming days", he would "convene industry leaders and groups representing teachers, parents and librarians. We can and must develop a solution for the Internet that is as powerful for the computer as the v-chip will be for television, and that protects children in ways that are consistent with America's free speech values."

The following are some actual quotes from the majority ruling written by Justice John Paul Stevens.

- Notwithstanding the legitimacy and importance of the congressional goal of protecting children from harmful materials, we agree with the three judge District Court that the statute abridges the freedom of speech protected by the First Amendment. "Congress shall make no law . . . abridging the freedom of speech."
- The Internet ...now enable[s] tens of millions of people to communicate with one another and to access vast amounts of information from around the world. The Internet is a unique and wholly new medium of worldwide human communication.
- The Internet has experienced extraordinary growth. The number of "host" computers -- those that store information and relay communications -- increased from about 300 in 1981 to approximately 9,400,000 by the time of the trial in 1996. Roughly 60% of these hosts are located in the United States. About 40 million people used the Internet at the time of trial, a number that is expected to mushroom to 200 million by 1999.
- Most colleges and universities provide access for their students and faculty; many corporations provide their employees with access through an office network; many communities and local libraries provide free access; and an increasing number of storefront "computer coffee shops" provide access for a small hourly fee.
- Several major national online services such as America Online, CompuServe, the Microsoft Network, and Prodigy offer access to their own extensive proprietary networks as well as a link to the much larger resources of the Internet. These commercial online services had almost 12 million individual subscribers at the time of trial.
- Anyone with access to the Internet may take advantage of a wide variety of communication and information retrieval methods. These methods are constantly evolving and difficult to categorize precisely. But, as presently constituted, those most relevant to this case are electronic mail ("e mail"), automatic mailing list services ("mail exploders," sometimes referred to as "listservs"), "newsgroups," "chat rooms," and the "World

Wide Web."

- E-mail enables an individual to send an electronic message -- generally akin to a note or letter -- to another individual or to a group of addressees. The message is generally stored electronically, sometimes waiting for the recipient to check her "mailbox" and sometimes making its receipt known through some type of prompt. A mail exploder is a sort of e-mail group. Subscribers can send messages to a common e-mail address, which then forwards the message to the group's other subscribers.
- Newsgroups also serve groups of regular participants, but these postings may be read by others as well. There are thousands of such groups, each serving to foster an exchange of information or opinion on a particular topic... About 100,000 new messages are posted every day. In most newsgroups, postings are automatically purged at regular intervals.
- In addition to posting a message that can be read later, two or more individuals wishing to communicate more immediately can enter a chat room to engage in real time dialogue--in other words, by typing messages to one another that appear almost immediately on the others' computer screens. The District Court found that at any given time "tens of thousands of users are engaging in conversations on a huge range of subjects." It is "no exaggeration to conclude that the content on the Internet is as diverse as human thought."
- The best known category of communication over the Internet is the World Wide Web, which allows users to search for and retrieve information stored in remote computers, as well as, in some cases, to communicate back to designated sites. In concrete terms, the Web consists of a vast number of documents stored in different computers all over the world. Some of these documents are simply files containing information. However, more elaborate documents, commonly known as Web "pages," are also prevalent. Each has its own address -- rather like a telephone number. Web pages frequently contain information and sometimes allow the viewer to communicate with the page's (or "site's") author. They generally also contain "links" to other documents created by that site's author or to other (generally) related sites. Typically, the links are either blue or underlined text -- sometimes images.
- Navigating the Web is relatively straightforward. A user may either type the address of a known page or enter one or more keywords into a commercial "search engine" in an effort to locate sites on a subject of interest. A particular Web page may contain the information sought by the "surfer," or, through its links, it may be an avenue to other documents located anywhere on the Internet. Users generally explore a given Web page, or move to another, by clicking a computer "mouse" on one of the page's icons or links.
- Access to most Web pages is freely available, but some allow access only to those who have purchased the right from a commercial provider. The Web is thus comparable, from the readers' viewpoint, to both a vast library including millions of readily available and indexed publications and a sprawling mall offering goods and services.
- From the publishers' point of view, it constitutes a vast platform from which to address and hear from a world wide audience of millions of readers, viewers, researchers, and buyers. Any person or organization with a computer connected to the Internet can "publish" information. Publishers include government agencies, educational institutions, commercial entities, advocacy groups, and individuals.

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- Publishers may either make their material available to the entire pool of Internet users, or confine access to a selected group, such as those willing to pay for the privilege. No single organization controls any membership in the Web, nor is there any centralized point from which individual Web sites or services can be blocked from the Web.
- Though sexually explicit material are widely available, users seldom encounter such content accidentally. A document's title or description will usually appear before the document itself ...and in many cases the user will receive detailed information about a site's content before he or she need take the step to access the document. Almost all sexually explicit images are preceded by warnings as to the content. The odds are slim that a user would enter a sexually explicit site by accident.
- Unlike communications received by radio or television, the receipt of information on the Internet requires a series of affirmative steps more deliberate and directed than merely turning a dial. A child requires some sophistication and some ability to read to retrieve material and to use the Internet unattended.
- Although parental control software currently can screen for certain suggestive words or for known sexually explicit sites, it cannot now screen for sexually explicit images. Nevertheless, the evidence indicates that a reasonably effective method by which parents can prevent their children from accessing sexually explicit and other material which parents may believe is inappropriate for their children will soon be available.
- The problem of age verification differs for different uses of the Internet. The District Court categorically determined that there is no effective way to determine the identity or the age of a user who is accessing material through e mail, mail exploders, newsgroups or chat rooms.
- Credit card verification is only feasible ...in connection with a commercial transaction in which the card is used, or by payment to a verification agency. Using credit card possession as a surrogate for proof of age would impose costs on non-commercial Web sites that would require many of them to shut down. Moreover, the imposition of such a requirement would completely bar adults who do not have a credit card and lack the resources to obtain one from accessing any blocked material.
- Commercial pornographic sites that charge their users for access have assigned them passwords as a method of age verification. The record does not contain any evidence concerning the reliability of these technologies.
- [Broadcasting] as a matter of history receives the most limited First Amendment protection, in large part because warnings could not adequately protect the listener from unexpected program content. The Internet, however, has no comparable history. Moreover, ...the risk of encountering indecent material by accident is remote because a series of affirmative steps is required to access specific material. ...the Internet is not as invasive as radio or television. ...communications over the Internet do not 'invade' an individual's home or appear on one's computer screen unbidden.
- Finally, unlike the conditions that prevailed when Congress first authorized regulation of the broadcast spectrum, the Internet can hardly be considered a scarce expressive commodity. It provides relatively unlimited, low cost capacity for communication of all kinds. ...This dynamic, multifaceted category of communication includes not only traditional print and news services, but also audio, video, and still images, as well

as interactive, real time dialogue. Through the use of chat rooms, any person with a phone line can become a town crier with a voice that resonates farther than it could from any soapbox. Through the use of Web pages, mail exploders, and newsgroups, the same individual can become a pamphleteer. As the District Court found, "...the content on the Internet is as diverse as human thought." We agree with its conclusion that our cases provide no basis for qualifying the level of First Amendment scrutiny that should be applied to this medium.

- We are persuaded that the CDA lacks the precision that the First Amendment requires when a statute regulates the content of speech. In order to deny minors access to potentially harmful speech, the CDA effectively suppresses a large amount of speech that adults have a constitutional right to receive and to address to one another.
- Given the size of the potential audience for most messages, in the absence of a viable age verification process, the sender must be charged with knowing that one or more minors will likely view it. Knowledge that, for instance, one or more members of a 100 person chat group will be minor -- and therefore that it would be a crime to send the group an indecent message -- would surely burden communication among adults.
- As a practical matter, the Court also found that it would be prohibitively expensive for noncommercial -- as well as some commercial -- speakers who have Web sites to verify that their users are adults.
- The general, undefined terms "indecent" and "patently offensive" cover large amounts of nonpornographic material with serious educational or other value. Moreover, the "community standards" criterion as applied to the Internet means that any communication available to a nation wide audience will be judged by the standards of the community most likely to be offended by the message. The regulated subject matter includes any of the seven "dirty words" ...the use of which the Government's expert acknowledged could constitute a felony. It may also extend to discussions about prison rape or safe sexual practices, artistic images that include nude subjects, and arguably the card catalogue of the Carnegie Library.
- Under the CDA, a parent allowing her 17 year old to use the family computer to obtain information on the Internet that she, in her parental judgment, deems appropriate could face a lengthy prison term. Similarly, a parent who sent his 17 year old college freshman information on birth control via e mail could be incarcerated even though neither he, his child, nor anyone in their home community, found the material "indecent" or "patently offensive," if the college town's community thought otherwise.
- We agree with the District Court's conclusion that the CDA places an unacceptably heavy burden on protected speech... [In a previous ruling] we remarked that the speech restriction at issue there amounted to "burn[ing] the house to roast the pig." The CDA, casting a far darker shadow over free speech, threatens to torch a large segment of the Internet community.
- The record demonstrates that the growth of the Internet has been and continues to be phenomenal. As a matter of constitutional tradition, in the absence of evidence to the contrary, we presume that governmental regulation of the content of speech is more likely to interfere with the free exchange of ideas than to encourage it. The interest in encouraging freedom of expression in a democratic society outweighs any theoretical but unproven benefit of censorship.